

Workshop on the Confinement of Genetically Engineered Crops
During Field Testing
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Setting of AOSCA Standards

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ABSTRACT

Concerned agricultural workers and progressive farmers from five states in the Upper Midwest and Canada founded the International Crop Improvement Association (ICIA) in 1919 to bring structure to the business of multiplying and maintaining improved crop varieties because the identity and/or identity of these releases were quickly being lost or misappropriated through the general practice of the day. More state certification programs participated in ICIA's development of standards and procedures to maintain the identity and purity of crop varieties during the 1920s and 1930s and 34 state certification programs were members of ICIA by 1940.

The first Federal Seed Act of 1939 recognized the concept of Certified seed being produced by state-authorized agencies, both public and private. ICIA Publication No. 16 (1946) contained a standardized presentation of certification requirements for many crops and became an internationally recognized resource in the development of seed certification programs. The ICIA changed its name to the Association of Official Seed Certifying Agencies (AOSCA) in 1968. AOSCA's certification standards for land history, isolation from contaminating pollen sources and varietal purity in the field and seed were incorporated into the U.S. Federal Seed Act Regulations in 1969, thus establishing a uniform standard for interstate commerce of certified seed.

AOSCA's 44 U.S. and six non-U.S. members constitute a board of directors that continues to maintain an active third-party system of assuring the identity and purity of crop varieties. The historical basis for seed certification involves inspection of producer records and planting of eligible stock seed, followed by field inspection for compliance with isolation and described varietal purity standards according to the generational increase system. Verification of pollen control in hybrid production has been crucial. Visual inspection of seed lots for varietal purity is practiced where feasible.

AOSCA's standards were developed to meet the needs of producers and consumers. The need for a tolerance for impurities was recognized. The agronomic, health and social impact of such impurities were relatively benign. Land history requirements, isolation distances and maximum allowable impurities were established by negotiating what was economically feasible, physically possible and commercially acceptable. Varietal purity has always been determined by phenotypic criteria contained in morphological and agronomic descriptions. Post-harvest requirements for verification of varietal purity have been limited to simple phenotypic evaluations, such as growouts. To date, AOSCA has not recognized transgenic traits as requiring unique standards and methods of evaluation. More sophisticated methods of measuring post-harvest purity are practiced by some agencies and may need to become AOSCA requirements.

The process for developing new standards and reviewing existing ones involves investigation of relevant issues and scientific evidence by a commodity committee, then formulation of recommendations to the AOSCA board of directors. An advisory committee of stakeholders representing affiliated public and private disciplines must approve all new standards and procedures, which eventually become amendments to the Federal Seed Act Regulations.

AOSCA's efforts have always focused on limiting the impact of extraneous pollen, seeds and propagules on the varietal purity of its commercial products. This objective contrasts sharply with the perceived BRS objective of preventing escape of a commercial product or trait into the environment.

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